REMARKS

This amendment is responsive to the Office Action dated February 27, 2003. Applicant has cancelled claim 39 (the second occurrence), amended claims 18, 27, 38, and 39, and added new claim 41. Claims 1-35 and 38-41 are currently pending in the application. In this Amendment, Applicant has amended the claims in accordance with the proposed revision to 37 CFR 1.121.

Claim Rejection Under 35 U.S.C. § 112, first paragraph

In the Office Action, the Examiner rejected claims 2, 17, and 26 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In support of the rejection, the Examiner asserted that the disclosure does not indicate how to calculate an approximately 33% gray background, as set forth in claims 2, 17, and 26.

Applicant strongly disagrees with this rejection. One of ordinary skill in the art, given Applicant's disclosure, would have no difficulty appreciating Applicant's possession of the invention defined by claims 2, 17, and 26. Applicant's disclosure clearly describes the use of a 33% dithered gray background. At page 2, lines 25-26, the disclosure states that "the dithered background is selected to be in the range of approximately 25 to 40% gray level and, more preferably, approximately 33%."

The disclosure further states, at page 2, lines 26-28, that "[d]ithered backgrounds in the range approaching approximately 33%, rather than 50%, more closely match the actual midpoint of black to gray transition for most display devices." At page 33, lines 8-12, the disclosure further states"[t]he dithered green background may be set at approximately 25% to 50%" and "[d]ithered backgrounds approaching approximately 33% may more closely match the actual midpoint of black to green transition for the display device, and may be preferred for typical display devices."

Further, one of ordinary skill in the art would readily understand "how to calculate" an approximately 33% dithered gray background. As is well known to those of ordinary skill in the imaging arts, the term "dither" generally refers to the simulation of gray level by mixing a proportion of "on" pixels with "off" pixels to achieve the appearance of the desired gray level

within the dithered region. See, e.g., http://www.webopedia.com/TERM/D/dithering.html (copy attached). Accordingly, at page 33, lines 13-14, the disclosure indicates that "[b]y alternating black and green at an appropriate frequency, a 25%, 33%, or 50% green background can be produced." The disclosure further notes that "[f]or a CRT, turning on or off all of the pixels in a given horizontal line should produce more predictable output from display device to display device than modulating individual pixels to form vertical lines, due to the video bandwidth of the device." Page 33, lines 14-17. Also, the disclosure points out that "generation of the dithered background by use of alternating horizontal lines is preferred." Page 33, lines 17-19.

Hence, one of ordinary skill in the art would have no difficulty ascertaining Applicant's possession of the claimed invention insofar as turning selected pixels on or off to achieve the appearance of a 33% gray background is concerned. In view of Applicant's disclosure and common knowledge in the imaging arts, one of ordinary skill in the art would understand that different percentages of gray can be achieved by turning selected proportions of pixels on and off. Therefore, Applicant strongly disagrees with the rejection under section 112, first paragraph, and respectfully requests that the Examiner withdraw the rejection.

Claim Rejection Under 35 U.S.C. § 112, second paragraph

In the Office Action, the Examiner rejected claims 18, 27 and 39 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner stated that claims 18 and 27 have insufficient antecedent basis for the limitations in the claims. Applicant has amended claims 18 and 27 for purposes of clarification. Applicant submits that claims 18 and 27, as amended, particularly point out and distinctly claim the subject matter, as required by 35 U.S.C. 112, second paragraph.

Applicant disagrees with the Examiner's assertion that the gray levels recited within claims 18 and 27 should be represented numerically. The Examiner stated that the "applicant should represent the color levels by number rather than broad limitations." Applicant's claimed invention is not limited to any particular numerical value of gray level, and therefore claims 18 and 27 should not be limited to particular numerical representations of gray levels. It appears that the Examiner's remarks are improperly directed to the scope of the invention, and not any

indefiniteness therein. Applicant respectfully requests withdrawal of the rejection of claims 18 and 27 under section 112, second paragraph.

In addition, with respect to claim 39, the Examiner stated that the invention is about color imaging and presentation of color images on display devices and that the Applicant is claiming physical data storage and a signal transmitted between computers. Applicant traverses the rejection with respect to claim 39. Applicant's claim 39 does not claim the signal being transmitted between the client and the remote server, but claims a computer-readable medium that includes instructions to cause a processor to transmit the estimated gamma, blackpoint, and gray balance information to the remote server on the network. Accordingly, the rejection of claim 39 under 35 U.S.C. 112 is improper. Applicant requests withdrawal of the rejection of claim 39 under 35 U.S.C. § 112, second paragraph.

Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-5, 7-12, 17, 19-26 and 28-36 under 35 U.S.C. § 102(b) as being anticipated by Yamamoto (US 2001/0014174). Applicant respectfully traverses the rejection. Yamamoto fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. 102(b), and provides no teaching that would have suggested the desirability of modification to include such features.

For example, Yamamoto fails to teach or suggest generating gray elements and a dithered gray background for display on a display device, as recited by Applicant's claim 1, and particularly a dithered gray background that represents a gray level of approximately 25 to 40%. Moreover, Yamamoto fails to teach or suggest estimating a gamma for the display device based on user selection of one of the gray elements that appears to most closely blend with the dithered gray background, as further recited by Applicant's claim 1.

In support of the rejection, the Examiner characterized Yamamoto as disclosing a method to adjust a background for a display image by allowing a user to freely set the background color so as to satisfactorily reproduce the color tone of the display image. However, the Examiner failed to account for a number of features as set forth in Applicant's claim 1. Specifically, the Examiner failed to account for "generating gray elements and a dithered gray background for display on a display device," as recited in Applicant's claim 1 and discussed above. Again, Yamamoto fails to teach or suggest generating gray elements and a dithered gray background for

display on a display device. In fact, Yamamoto fails to mention anything at all regarding generation of a dithered gray background. In addition, Yamamoto fails to teach or suggest generating grey elements for display on the display device.

Moreover, the Examiner did not account for Applicant's feature of "estimating a gamma for the display device based on user selection of one of the gray elements that appears to most closely blend with the dithered gray background," as further recited in Applicant's claim 1. Yamamoto discloses allowing "[t]he user to independently input the R, G, and B values of the background color." However, inputting R, G, and B values for a background color seems to bear no relationship to estimating a gamma based on the user selecting one of the gray elements that most closely blends with a dithered background. Indeed, Yamamoto contemplates neither a dithered background nor the presentation of a plurality of gray elements with such a background.

Adjusting R, G, and B color values per Yamamoto to achieve a desired background intensity would not produce a dithered background. The Examiner's assertion that the background intensity in Yamamoto would inherently span the range of 25-40% is inapposite for two reasons. First, the assertion is unsupported by the content of the Yamamoto reference, which does not disclose such a range. More importantly, even if such a range were contemplated, Yamamoto fails to teach the use of a dithered background. Instead, Yamamoto describes directly controlling pixel intensity.

In his analysis, the Examiner further referred to the preview processing setting illustrated in FIG. 6 of Yamamoto, which automatically sets the R, G, and B values in accordance with pre-set display conditions, including the color temperature and type of the designated monitor, the density (gamma value) of the monitor, and the type of illumination light (type of fluorescent lamp). It is unclear how automatically setting values of R, G, and B in accordance with pre-set display conditions would conform to estimating a gamma of the display device based on the user selecting one of the gray elements that most closely blends with a dithered background, as set forth in claim 1. The passages in Yamamoto identified by the Examiner do not provide any suggestion of the limitations recited in Applicant's claims.

In order to support an anticipation rejection under 35 U.S.C. 102(b), it is well established that a prior art reference must disclose each and every element of a claim. This well known rule

of law is commonly referred to as the "all-elements rule."[1] If a prior art reference fails to disclose any element of a claim, then rejection under 35 U.S.C. 102(b) is improper. [2]

Yamamoto fails to disclose all of the limitations set forth in claims 1-5, 7-12, 17, 19-26 and 28-36. For at least these reasons, Examiner has failed to establish a prima facie case for anticipation of Applicant's claims 1-5, 7-12, 17, 19-26 and 28-36 under 35 U.S.C. 102(b). In view of the fundamental shortcomings identified above, Applicant reserves comment concerning the additional limitations expressed in the dependent claims, and do not acquiesce in the Examiner's application of the teachings of Yamamoto to those claims. Withdrawal of this rejection is respectfully requested.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 6, 13-16, 37 and 38 under 35 U.S.C. 103(a) as being unpatentable over Yamamoto, and further in view of Kumada et al. Applicant respectfully traverses the rejection.

Applicant first points out that claim 17 has been amended to properly depend from claim 15, which was rejected under section 103, rather than claim 5, which was rejected under section 102. Also, Applicant questions the Examiner's rejection of claims 19-24 under section 102 insofar as they all are dependent on claim 15, which was rejected under section 103.

In any event, neither Yamamoto nor Kumada et al. discloses or suggests the inventions defined by Applicant's claims 6, 13-24, 37 and 38 and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention. As described above with respect to the rejection of claims 1-5, 7-12, 17, 19-26 and 28-36 under section 102, Yamamoto fails to teach or suggest determination of gamma by selecting one of a plurality of displayed gray elements that appears to most closely blend with a dithered gray background that represents a gray level of approximately 25 to 40%. This feature is required by all of claims 6, 13-24, 37 and 38. Kumada et al. provides no teaching sufficient to cure this basic deficiency in

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[1] *See Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81 (CAFC 1986) ("it is axiomatic that for prior art to anticipate under 102 it has to meet every element of the claimed invention").
[2] *Id. See also Lewmar Marine, Inc. v. Barient, Inc.* 827 F.2d 744, 3 USPQ2d 1766 (CAFC 1987); *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (CAFC 1990); *C.R. Bard, Inc. v. MP Systems, Inc.*, 157 F.3d 1340, 48 USPQ2d 1225 (CAFC 1998); *Oney v. Ratliff*, 182 F.3d 893, 51 USPQ2d 1697 (CAFC 1999); *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 57 USPQ2d 1057 (CAFC 2000).

Yamamoto relative to claims 6, 13-24, 37 and 38. Indeed, the Examiner did not cite Kumada et al. for such an teaching.

Yamamoto and Kumada et al. lack any teaching of the further limitations set forth in claims 6, 3-24, 37 and 38. In light of the glaring differences already described above, however, Applicant reserves further comment concerning such additional limitations expressed in the dependent claims, but do not acquiesce in the Examiner's application of the teachings of Yamamoto or Kumada et al. to those claims.

For at least these reasons, the Examiner has failed to establish a prima facie case for obviousness of Applicant's claims 6, 13-16 and 37-38 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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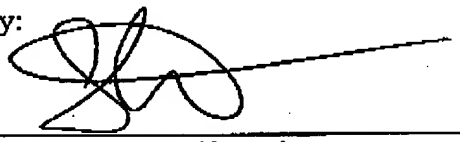
By: 

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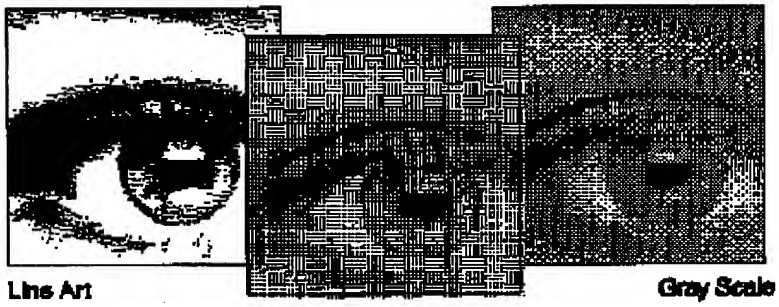

Dithering

Creating the illusion of new colors and shades by varying the pattern of dots. Newspaper photographs, for example, are dithered. If you look closely, you can see that different shades of gray are produced by varying the patterns of black and white dots. There are no gray dots at all. The more dither patterns that a device or program supports, the more shades of gray it can represent. In printing, dithering is usually called *halftoning*, and shades of gray are called *halftones*.

Note that *dithering* differs from *gray scaling*. In gray scaling, each individual dot can have a different shade of gray.

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